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STATE OF MICHIGAN

DEPARTMENT OF NATURAL RESOURCES

LANSING



REBECCA A. HUMPHRIES
DIRECTOR

January 15, 2010

Mike Smolinski
Department of Environmental Quality (DEQ)
Land and Water Management Division
420 Fifth St.
Gwinn, MI 49841

Dear Mr. Smolinski:

SUBJECT: WOODLAND ROAD LLC, 09-52-0086-P

Michigan Department of Natural Resources (DNR) Wildlife Division staff, Terry McFadden, Brian Roell, and Robert Doecker, have reviewed Permit Application 09-52-0086-P for Woodland Road LLC. The applicant proposes to construct a 22.3 mile long multi-purpose road in Humboldt Township that will be open to mining, logging, aggregate industries, and public recreational use. The road will cross the Middle Branch of the Escanaba River, Second River, Koops Creek, Voelkers Creek, Dead River, Wildcat Canyon Creek, Mulligan Creek, Yellow Dog River, and multiple wetland areas. The proposed road poses some potentially detrimental environmental effects particularly the expansion of primary road into previously poor access lands, a loss of 31 acres of wetlands, and an increase in habitat fragmentation.

Michigan is part of the Northern Great Lakes Region, defined as one of the most densely forested regions in the United States. According to Saunders et al. (2002), roads are the primary cause of habitat fragmentation and reduction in this region. The development of new roads leads to an increase in habitat fragmentation, a decrease in habitat patch size, and forest conversion from increased human access (Saunders et al. 2002 and Forman and Alexander 1998). The development of primary roads often leads to an increase in secondary roads creating a network across the landscape (Forman and Alexander 1998). Roads act as barriers or filters to some wildlife, especially wetland species such as amphibians and turtles and can interrupt wildlife corridors (Forman and Alexander 1998). As new roads and the associated traffic volume increase, they serve as a conduit for the introduction and spread of invasive species (Saunders et al. 2001 and Spellerberg 1998). Natural landscape processes such as groundwater flow, stream flow, fire spread, and foraging and dispersal of wildlife are disrupted by roads (Forman and Alexander 1998). Fragmentation due to roads causes negative impacts on interior wildlife species while increasing the more common species associated with habitat edge (Forman and Alexander 1998 and Spellerberg 1998).

The existing road and proposed road are distinctly different due to the increase in width, orientation, increase in vehicle speeds and traffic volume. The proposed "Woodland Road" is a new year-round "multi-use" road accommodating mining traffic, logging operations, and recreational use. We are concerned that this year-round road with increased traffic volume and speed will result in wildlife

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mortality and threats to public safety due to vehicular impacts with species such as deer, moose, bear, and wolf.

For example, according to Michigan DNR data, the Woodland Road is proposed to be developed through an area with high densities of moose, which is also supported by surveys conducted by James H. Hammill with Iron Range Consulting and Services (IRC&S). The applicant states, "The proposed road does not "open up" previously undisturbed habitats, which could have an effect on large mammal species." However, Seiler et al. (2005), found that collisions between moose and vehicles increase as traffic volume and speeds increase. Also, speeds slower than 43 mph caused significantly fewer vehicle/moose impacts than speeds that exceeded 55 mph (Seiler 2005). The applicant states that "Large mammals may suffer mortality from vehicles using the proposed woodland road" and "the fact that the proposed road is a two-lane, relatively low speed road will minimize mortality, as will its shorter length compared to the other alternatives." However, according to Seiler et al. (2005), speeds, traffic volume, and moose densities were significant factors in moose vehicle collisions. In contrast, the alternate routes have much lower densities of moose. In addition, we have not been informed of road maintenance plans regarding the use of road salt. Grosman (2009), found that moose are attracted to roadside salt pools during spring melt periods which can significantly increase moose vehicle collisions. We ask that once maintenance plans are developed that we are given opportunity to review.

We are also concerned that other large mammals, such as wolves and deer, may be adversely affected by the proposed route. Surveys conducted by IRC&S and the DNR have found that two family groups of wolves use the proposed route and occupy approximately 15 of the 22 mile stretch. Furthermore, although the route does not pass through deer wintering complexes, deer in northern Marquette County commonly travel distances that exceed 30 miles to reach winter range. DNR deer tagging data indicates deer cross the proposed route traveling west-to-east to wintering areas and then east-to-west during spring migration. We strongly disagree with the applicant (see page 61 under Large Mammals), that "the road is expected to help large mammals move around during the winter months, which is critical to their survival." Large mammals will most likely use this road, especially during the winter as the applicant states, but having large mammals use a road travelled by large ore and logging trucks at higher speeds than the current road allows will increase the potential for vehicle-animal strikes. Road kill rates can negatively impact large mammals and may cause significant declines in localized populations, if mortality rates exceed reproductive rates (Forman and Alexander 1998). Furthermore, the applicant acknowledges that large mammals may suffer mortality from vehicles using the proposed Woodland Road, but any plans to mitigate or minimize vehicular collisions with wildlife are not addressed.

Due to the concerns stated above, we recommend the following:

- Post and enforce speed limits not to exceed 45 mph with slower speeds of 30 mph in areas of concern (Seiler 2005). Areas of concern should be identified in coordination with DNR staff and will be based on areas with concentrated wildlife movement, which may be determined both by existing survey data and future monitoring results. Slower speed limits should also be recommended during times when large mammals are known to be more mobile, such as dawn and dusk and during rut.
- Monitor and report vehicle collisions with wildlife to DNR Wildlife Division. This information will be used to determine if additional mitigation solutions are needed.
- Survey for and remove invasive/exotic noxious plants

If you have any questions about this matter, please contact us at 906-228-6561 or mcfaddet@michigan.gov. If you wish to contact us in writing, our address is:
DNR-Marquette Operations Service Center, 1990 US-41 South, Marquette, MI 49855

Sincerely,

Terry McFadden, Wildlife Biologist-Gwinn Unit

Brian Roell, Wildlife Biologist, WUP Wildlife Division

Robert Doecker, Wildlife Division Supervisor, WUP

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Literature Cited:

Forman, R. T. T., and L. E. Alexander. 1998. Roads and their major ecological effects. *Annual Review of Ecology and Systematics* 29: 207-31.

Grosman, P.D., J. A. G. Jaeger, P. M. Biron, C. Dussault, and J. -P. Ouellet. 2009. Reducing moose-vehicle collisions through salt pool removal and displacement: an agent-based modeling approach. *Ecology and Society* (2): 17

Hawbaker, Todd J., and V. C. Radeloff. 2003. Road and landscape pattern in Northern Wisconsin based on a comparison of four road data sources. University of Wisconsin, Madison, Department of Forest Ecology and Management 53706-1598.

Saunders, S. C., M. R. Mislivets, J. Chen, D. T. Cleland. 2002. Effects of roads on landscape structure within nested ecological units of the Northern Great Lakes Region, USA. *Biological Conservation* 103: 209-225.

Seiler, Andreas. 2005. Predicting locations of moose-vehicle collisions in Sweden. *Journal of Applied Ecology* 42: 371-382.